

Amendments to the Specification:

On page 1, prior to the first paragraph which begins on line 4, please insert the following:

FIELD OF THE INVENTION

On page 1, prior to the second paragraph which begins on line 13, please insert the following:

BACKGROUND OF THE INVENTION

On page 3, prior to the paragraph which begins on line 14, please insert the following:

SUMMARY OF THE INVENTION

On page 6, prior to the paragraph which begins on line 8, please insert the following:

BRIEF DESCRIPTION OF THE DRAWINGS

On page 6, prior to the paragraph which begins on line 23, please insert the following:

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please replace the paragraph which begins on page 6, line 23 and ends on line 28, with the following rewritten paragraph:

Fig. 1 is a schematic drawing of an embodiment of the ultrasonic flow measuring ~~devices~~ device 1 of the invention. The measuring device 1 is a clamp-on flow measuring device. In the illustrated case, the measuring device 1 determines the volume flow rate, or the mass flow rate, of the medium 4 according to the known travel-time-difference method.

Please replace the paragraph which begins on page 6, line 30 and ends on page 7, line 5, with the following rewritten paragraph:

Essential components of the clamp-on ultrasonic flow measuring device 1 are the two ultrasonic transducers 5, 6 and the control/evaluation unit 11. The two ultrasonic transducers 5, 6 are mounted on the wall 3 of the pipe 2 at a distance L from one another by means of securement equipment not separately shown in Fig. 1. Appropriate securement devices are sufficiently known from the state of the art and are available from the Endress + Hauser assignee. The medium 4 flows through the pipe 2 of inner diameter d_i in the streaming direction S.

Please replace the paragraph which begins on page 7, line 7, and ends on line 21, with the following rewritten paragraph:

~~An~~ The ultrasonic transducer transducers 5, 6 ~~has~~ have as an essential component at least one piezoelectric element 9, 10, which produces and/or receives the ultrasonic measuring signals. The ultrasonic measuring signals are coupled via the coupling wedges 7, 8 into and out of the pipe 2 containing the flowing medium 4. A coupling wedge 7, 8 is designed in a known manner such that a best possible impedance matching is obtained in the transition from one substance into the other. The ultrasonic measuring signals propagate in the pipe 2 and medium 4 ~~on~~ along the sound path SP. In the illustrated case, a so-called two-traverse arrangement of the ultrasonic transducers 5, 6 is shown. One traverse is that part of the sound path SP in which an ultrasonic measuring signal crosses the containment pipe 2 one time. The traverses can, depending on the arrangement of the ultrasonic transducers 5, 6 and, as required, with the introduction of a reflector element into the sound path SP, run diametrically or along chords.

Please replace the paragraph which begins on page 7, line 23 and ends on page 8, line 3, with the following rewritten paragraph:

The separation L of the two ultrasonic transducers 5, 6 is dimensioned, to the extent possible, such that a large part of the energy radiated into the pipe 2 from ~~the~~ one particular ultrasonic transducer 5, 6 is received by the other ultrasonic transducer ~~[[6, 5]]~~ 5, 6. The optimum separation L of the two ultrasonic transducers 5, 6 is a function of a number of system and process variables. If these variables are known, then the optimum separation L of the ultrasonic transducers 5, 6 can be calculated highly accurately using the travel time of the ultrasonic measuring signals. Snell's Law is used in a known manner in the calculation. Especially relevant, as concerns the system and process variables are the inner diameter d_i of the pipe 2, the thickness w of the pipe wall 3, the velocity of sound c_P in the material of the pipe 2, or the velocity of sound c_M in the medium 4.

Please replace the paragraph which begins on page 8, line 5 and ends on line 10, with the following rewritten paragraph:

Fig. 2 is a block diagram of a first form of embodiment of the device of the invention; Fig. 3 shows a block diagram of an alternative form of embodiment. The two block diagrams are greatly simplified: Thus, the device for exciting the sensors (transducers) (emitting stage) has been omitted. A likewise usually present multiplexer serving for switching the sensors has also not been drawn.

Please delete page 13 in its entirety, lines 1 through 25.